The Evening World Daily Magazine

MONDAY, JULY 8, 1918

Why Aviators Risk Death In Air Stunts Like Nose-Dive, Which Cost Mitchel's Life

Weird Evolutions Necessary for Battle Pilots, Says Henry Woodhouse, Authority on Military Tactics in the Clouds—Every Wild Drop or Turn Has Its Special Purpose—How They Are Done Now First Told in Detail.

By Willis Brooks

FOR what essential purpose do fighting aviators perform the various "stunts" known as "tail spins," "nose dives," "wing slips," "barrel rolls," &c. and how do they accomplish them?

We have just seen the grievous effects of one of these evolutions in the death of Major John Purroy Mitchel, former Mayor of New York, killed at Gerstner Field, Louisiana, last Saturday, while attempting a "nose-dive."

What are the elements of special danger in performing these feats? Is there no way this danger can be avoided and still achieve the desired results?

That was the substance of a series of questions I put to Henry Woodhouse, author of the "Textbook of Military Aeronautics," the "Textbook of Naval Aeronautics" and other works relating to air fighting.

Before answering, Mr. Woodhouse said he had put much the same inquiries to Lieut. Granville A. Pollock of the Lafayette Escadrille, who had long been in the British and French air services and was exceptionally well qualified to define the several tricks a fighting aviator must employ to save his own life.

"First," said Mr. Woodhouse, "let me say there are some tricks that save a pilot and some that kill him. The saving tricks are usually those that can be done easily without overstraining any part of the machine. The others, such, for instance, as the 'tail slide,' in which the machine is really misused, should be resorted to only in so great an emergency that nothing else will save the pilot. Many of the fatal accidents to our student aviators are due to their efforts to perform these dangerous tricks.

"In the small, swift airplane of today, in which the pilot flies alone, his machine gun is rigidly fixed to the front of the machine. To aim it, therefore, he must aim the entire machine. Accordingly he must so manoeuvre as to point the nose of his machine dead at the enemy without permitting his adversary to do the same to him. It is for this purpose that most of these tricks are performed."

For the enlightenment of laymen who do not know how these airplanes are managed it may be well to explain that the control stick, commonly called the "joy stick," controls both the elevating planes, at the tail of the machine, and the ailerons, or balancing planes, attached to the wings, and is operated by the hand, while the rudder, which operates like the rudder of a boat, is controlled by the feet of the pilot.

Suppose the machine to be in normal flight, that is, flying horizontally and right side up, if the control stick be pulled back it raises the elevating planes, turning the flight upward. If it be pushed forward it lowers them, turning the flight downward. But if the control stick be pushed to the right or left it raises the aileron of one wing and depresses the opposite one, giving the machine a tilt one way or the other. The extent of this tilt depends upon the distance, right or left, that the control stick is moved. Expert pilots are able thus safely to turn a machine completely over in what is a "roll."

In operating the rudder the pilot pushes his right foot forward to turn his machine to the right, and his left foot to turn it to the left.

To achieve the famous vrille, or tail spin, Mr. Woodhouse informs me, the pilot, flying level, switches off his motor, at the same instant pulling the control stick quickly back toward him and sharply toward one side, accompanying this operation with a sudden push of the foot, right or left, according to which side the control stick is directed. The result is that the machine shoots suddenly upward, losing speed, in fact, stalling, and falls sharply over to the side with a twisting or corkscrew movement, which is varied by the sharpness with which the rudder pressure has been utilized.

To cease whirling, the pilot replaces the controls in the centre, feet straight, and slowly pushes the control stick forward a few inches, thus lowering the elevating planes, causing the machine to point forward and dive straight down. The "vrille" can be done equally easily to either side, or the controls can be deliberately "crossed"—that is, the rudder set to the side opposite the balancing controls, though this is somewhat harder on the machine, as a twisting movement is produced in the fuselage (the body of the machine) and the spin is not so quick.

All this sounds simple enough, but every movement must be made at precisely the right instant, else any one of a dozen wrong results may follow. For a quick change of direction—that is, to turn as quickly as possible in the opposite direction without loss of either speed or height—the pilot, flying at level, throws his control stick very sharply to one side as far as it will go and immediately pulls it hard back, at the same time giving the rudder a very slight pressure with the opposite foot—just enough to hold the tail level, or the machine will be inclined to fly upward.

"The result," says Mr. Woodhouse, "is very startling to a beginner, for he will feel as if he were being forced through the seat, so strong is centrifugal force acting, yet he, in reality, makes a comparatively wide bend, not unlike a hairpin."

Then follows a "wing slide," which is done by throwing the control all the way to one side and pushing the opposite foot sharply ahead, sufficient to hold the nose of the machine up, and at the same time pushing the control stick slightly forward, which gives the effect of travelling on the "outside" of a circle, the machine descending sidewise at a terrific speed, much faster than it goes ahead.

Reversing, or "renversement," as the French call it, is a change of direction without loss of height or reduction of speed. The pilot, flying at level, points his machine very slightly down, to bring his speed up to maximum, then pulls the control stick back—not too far, or he will go into a "loop"—at the same time reducing motor speed, in order not to perform the evolution too quickly. When the machine has seemed to lose some of its speed, which follows almost at the moment, the rudder is sharply pushed to one side and the machine falls to that side. When vertical the pilot, returning his feet to the centre, opening the motor, resumes normal flight.

This also is performed to either side. Unlike the "vrille," it does not make use of the ailerons.

"Retournment" (returning) is similar to "renversement," but instead of coming out in an opposite direction the movement is continued until the original course is resumed. It is accomplished by raising the elevating planes quickly and kicking the rudder over sharply. The machine mounts suddenly, then starts to fall to one side, the tail going up. Now, as the position approaches the vertical the rudder is partly recovered and the aileron control pulled moderately to the same side, producing a "half spin," bringing the machine back to its former direction. By the use of the ailerons with the rudder in this evolution speed is maintained without loss of height, and, since it is usually advantageous to the air fighter to hold a position above his antagonist these factors count for much.

The "horizonal vrille," or "barrel roll," as it is often called, is very spectacular and by far the most difficult evolution to execute. It is not often used in combat, though Lieut. Fred H. Sheppard of the Australian Flying Corps recently told me that the timely use of it once [illegible] saved his life, when an enemy pilot was gaining on him in a tail chase.

It is usually started by slightly reducing the speed of the motor, turning the elevating planes well up, giving the rudder a quick kick to the full extent and at once replacing all controls in the centre. The result is, the machine starts suddenly to mount, but the full effect of the rudder swings it up on one wing, turns it completely over sidewise ending with a wing slip and a flattening out in a side direction.

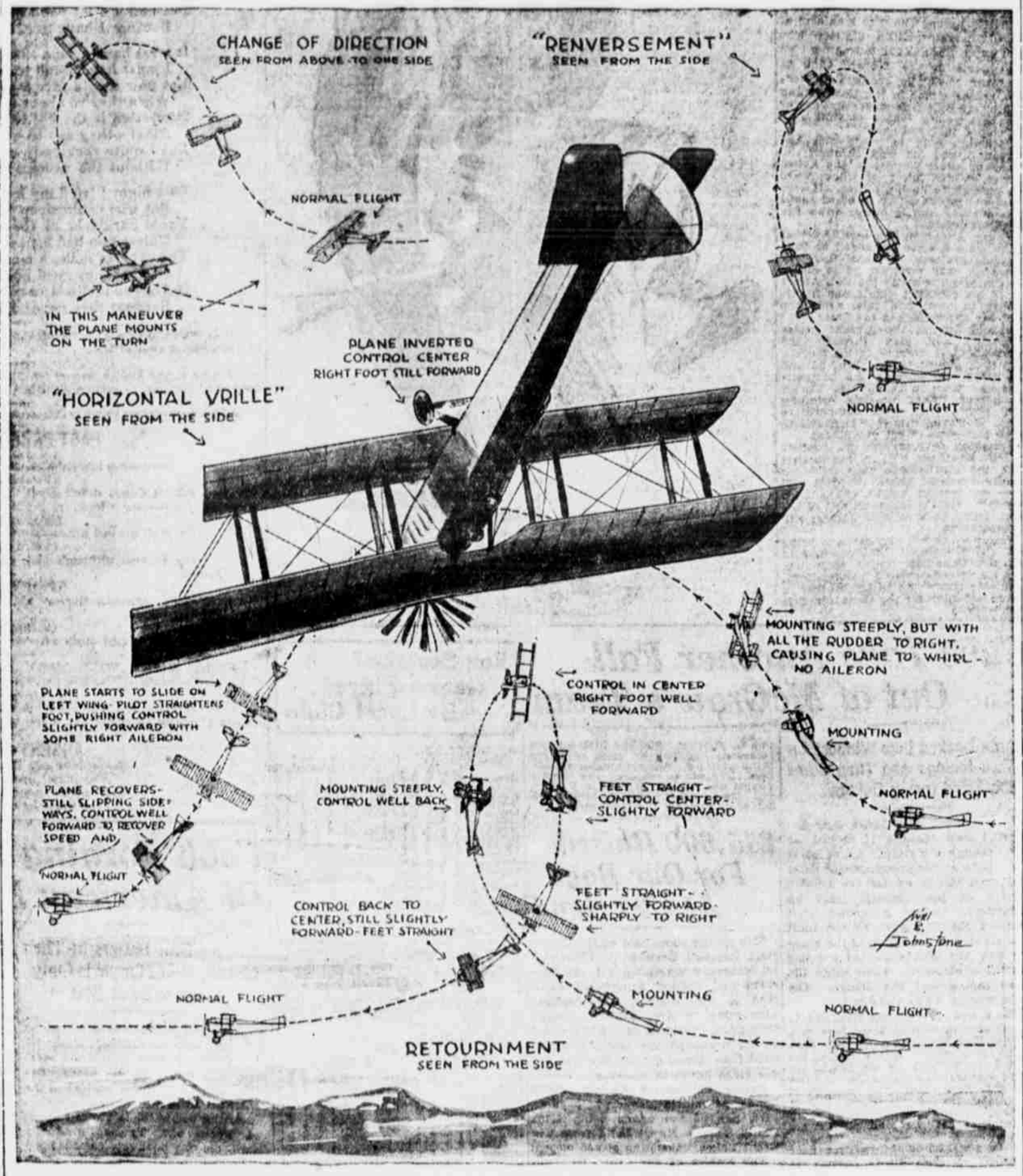
Looping is seldom resorted to in an air fight, because when the machine is inverted the pilot is helpless for a moment, until the machine has passed the dead point and started downward, and the enemy is likely at some point in the turn to find him a good target. Moreover, if he is using belt cartridges in his machine gun, the belt is likely to become deranged and jam the gun.

LONE VILLAGE LONESOME.

SKIDDAW is the not inappropriate name of a village in England that has only a single inhabitant. The lone villager of Skiddaw complains because he cannot vote—there being no overseer to prepare a voters' list and no church or public building on which to "publish" one, as the law requires.

Tricks of the War Flyer That Often Foil His Foes

HERE IS THE WAY GIDDY LOOPS AND SUDDEN CURVES ARE CARRIED OUT IN ACTUAL COMBAT WITH ENEMY



The Frog Sangerbund

When the Klown Prince Gave Credit to the Vocalizing Hoptoads for the "Victory" on the Ailette River, He Started Something—If the War Is to Be Run on a "Zoo" Basis It's All Over Right Now—That Frog Sangerfest Is to Be Cancelled as Soon as the Wire-Haired, Soprano Harlem Cats Are Sent Over to Yodel the Bulltoads Into Silence—A Croaking Frog Never Bites, and When the War Is Over the Kaiser Will Be Doing the Croaking.

BY ARTHUR ("BUGS") BAER.

SINCE the Frog Sangerbund busted loose on the Ailette River and made Caruso look like a finger talker with rheumatic knuckle joints, the war is starting to resemble lunch time at the Zoo. Now that the pop-eyed adult tadpoles have cast aside their thin veneer of neutrality, all the birds who flatfooted up Mr. Noah's esculator are sticking a spoon into the war.

The bullyhooting started when the Kaiser dragged his surprised complexion out of the imperial beer can and overheard the Clown Prince order a dose of frog sized Iron Crosses in the usual carload lots. Although the Kaiser must realize that the Clown Prince's natural food is cocoanuts, the Kaiser jr. occasionally stakes his old man to a flock of shocks. Even though the Kaiser has sold the peanut, pickpocket and soda pop concessions on the Marne, he retains the Iron Cross privilege exclusively for himself. That is one atrocity which is vested within the royal vest. Knowing the Kaiser jr. is slightly exempt under the hat, and also being hep that every German soldier is thoroughly diluted with Iron Crosses, Billhelm buzzed the Clown Prince as to the destination of the pewter medallions.

The Kaiser Jr. explained that the frog sized Iron Crosses were just what they were—Iron Crosses for frogs. In his usual fermented chatter, containing 8 per cent. alcohol, the Clown Prince said that the croaking of the Frog Sangerbund on the Ailette River was so corrugated that the Imperial Hohenzollern troops had brought up ammunition and batteries under cover of the froggish gossiping. He also said that the French sentinels thought that the racket was nothing but a regiment of hoptoads. The French sentinels were right except that some of the hoptoads wore iron hats. Fortunately for the Allies, a frog's croak is worse than his snap. Also, a croaking frog never bites.

After explaining, the Clown Prince loaded his fountain pen with more schnapps. Then he and the Kaiser goose-stepped out to decorate the frogs with pewter crosses. The frogs managed to keep two jumps in the lead, so the Kaiser bought a can of sardines and decorated them. The sardines never did anything for Germany, but they are easier to catch than hoptrogs. The trouble with decorating a bulltoad is that he keeps one froghop ahead of the decoration.

Since the frogtoads have joined the Junkers, the Allies are drilling Jersey skeeters and one-eyed armadilloes. An escadrille of double pronged Jersey skooters will be sent into Berlin with one-way tickets. A Jersey skitter is an atrocity with wings, feeds himself and never gets busted arches. The Kaiser won't be able to decorate a Jersey skatter, because the skeeter will decorate the Kaiser. The one-lamped Peruvian armadilloes will be used as shock troops on the Siberian front. Shocks don't annoy 'em because being a one-eyed armadillo is a shock in itself.

An orchestra of wire haired, soprano Harlem cats will be mobilized under the Work-or-Fight Law. They will be used to combat the frog menace on the Ailette River. When the Frog Sangerbund inhales an earful of poison Harlem cat chatter they will curl up on the edges in disgust. That old frog Sangerfest will be cancelled right there. By sticking walnut shells on the cats' hoops a new crop of noise will be assured for emergencies. A choir of asthmatic, rusty hinged, saw edged parakeets will also be trained for service on the Ailette River. They will aid the cats in yodelling down the Imbeerial Prussian toadhoppers.

A census of the Harlem cattery shows that there are 14,000,000 cats within the cat draft age from 3 to 65 years. And when the cats shuffle off to the front the Harlem folks won't hang out any service stars for 'em.

The hopfroggers won't have a chance croaking against a double barrelled Harlem cat. Because when a Harlem alley rabbit starts in to yodel he just unlocks his face and throws the key away. Those Harlem fence terriers will just naturally squawk those toadhoppers under the table. The frogs will let but one last croak and then croak.

Looks like the war is all over except the croaking.

Which is one place where the Kaiser gets the first chance to sign on the dotted line.

MONDAY, JULY 8, 1918

Little Stories From the Movies

The House Next Door

Featuring Mr. and Mrs. Sidney Drew and Produced Under the Title "The Professor's Romance"

"THE CHILDREN NEEDED THE FIRM HAND OF A FATHER."

By William Addison Lathrop.

(A motion picture synopsis in exactly the form in which it was submitted to the studio, and one of a series by this author being published in The Evening World.)

FOR more than ten years the housekeeper had opened the library door at exactly thirty minutes past 6 and announced that supper was ready. And the Professor would close the volume—"Humboldt's Cosmos" or "Kant's Critique of Pure Reason"—put the book carefully back in its place, pocket his glasses and follow her into the little dining room for his toast and tea and canned peaches. The serenity of his bachelor household and its clocklike regularity had been undisturbed for years. About his only callers were the male members of the Society for Ethical Research, who came to sit at the feet of this Gamaliel and drink in the words that fell from his lips.

The professor was "gun-shy" when it came to the ladies. No romance had ever rippled the calm of his methodical life; there was nothing about dimples or star-eyes or ringlets in any of the text-books he had either written or read, and a picture of a heart looked to him like a conic plane, attenuated at the apex, and with a curvilinear indented base. His interest in Venus was confined to the theories in regard to the missing arms of the Milo variety, and the way to differentiate the Fourth Avenue antiques from the ones Schliemann dug up at the Campanile or the Acropolis—or somewhere. He could translate the hieroglyphs on the sarcophagus of Cleopatra, and tell you how she was mummified differently from Ptolemy II., and that let him out about the lady. All of which is pertinent to this story.

The house next door had a new tenant. Louise had taken it for the summer and had arrived with Bill and Elizabeth and a dog and a nurse; and forthwith the serenity of the Professor departed. A low fence separated the two cottages, but no fence was ever built that would keep out Bill and Elizabeth when they had once made up their minds to get on the other side. They soon had a picket pried loose and went in and out as they listed.

Any dignified man who wears an out-of-date silk hat and a very long frock coat is a natural mark and a perpetual temptation to children like that pair. They broke his windows and dispersed the meetings for the furtherance of ethical research. They ran the gamut of annoyance until his deductions became faulty and his conclusions illogical—it is difficult to reason accurately when in fear of a half-brick or the water from a garden hose. He had to listen to the piano as played by Louise, and it drove him to shut the windows and put on earmuffs.

And as he walked one day in the cool of the afternoon, beneath his own vine and fig tree, reading something light in the original Sanskrit, by way of recreation, a deluge of water from the hose overwhelmed him. As soon as he could gather his dripping senses and his glasses, he grabbed the pair and hustled them to their mother; and —lie upon her—when she saw him she laughed!

Now, when Louise laughed, anybody else laughed too, and that is exactly what the Professor did. Louise took him into the drawing room and spread a mackintosh over a chair and sat him on it, and made him drink some whiskey, after he had made a forcible but ineffectual protest. She spoke sadly of the children, and making little dabs at her eyes with a lace handkerchief, told him that they needed the firm hand of a father.

The Professor thought so too, but said it was a mere nothing and didn't matter in the least. And that evening, as he sat with his feet in a mustard bath, with a blanket wrapped around the rest of him, the telephone rang—it was Louise inquiring if he had taken cold—and he told her, catarrhally, "Do, dot a bit. I have dot suffered ady idcodvediedce"—and went back and put his feet in the mustard bath, and smiled!

And a few evenings later, after he had arranged his hair for the eleventh time, he went out and talked to Louise over the fence for a few moments. When she went in he saw that the moon was beautiful. He had always thought of it before as a cold satellite of the earth, without atmosphere and the radius of whose orbit was 240,000 miles.

He sat in the library and the music from the piano came tinkling through the window; old Mary, the housekeeper, brought the ear-muffs and shut the windows. But he discarded the ear-muffs as soon as she had gone, and softly opened all the windows and sat with clasped hands, beating time with his foot.

As he glanced through the window the next day he saw a man dressed in the height of fashion enter Louise's gate and ring her bell. For the first time in many years he realized that his clothes were not exactly in style. A visit to the tailor and the hatter and the haberdasher and the bootmaker soon fixed that, and arrayed like Solomon in all his glory, he emerged from the chrysalis of his sombre vesture, and almost scared old Mary to death when she saw him.

He called on Louise, and the kids "didn't do a thing to him." And Louise told him that they needed the firm hand of a father. He offered to assist her in any way that he could—and Louise sighed, wistfully. He bought an authority on the bringing up and control of children, by Miss S. P. Inster; and when "mother's angels" did something particularly outrageous he consulted the book—and always found that "children should never be spanked."

But after they had stolen his outing flannels and Mary's best dress from the line for a dress parade, and had pulled the plug out of the boat in which he took Louise boating, compelling them to wade ashore, and had done other ingeniously devilish things he told Louise that "he was inclined to doubt the accuracy of the dogma as laid down in Miss S. P. Inster's book." And Louise said, "They need the firm hand of a father." He placidly admitted that that was so, and again Louise sighed.

But even the most bashful of men comes to taw at last. He sat with Louise on the sofa in her drawing-room, and had laid his hand on his heart and had swallowed hard several times, when the awful knowledge was borne in upon him that somebody was under the sofa—and he dragged out Elizabeth and Bill. He started to consult the book—but closed it, and, taking Bill across his knee, spanked him with it heartily. Bill finally wriggled out of his grasp, and he and Elizabeth were sent to bed. Louise told him that "the children needed the firm hand of a father"—and after thinking a moment he held up his good right hand and asked her if she thought it would do. She fell on his neck—being taken so by surprise!

Together they went later to the nursery. There lay Elizabeth and Bill, tucked safe in their little beds, their sweet, gentle, child-faces dewy with the beauty sleep. Tenderly Louise kissed them, and the Professor, smiling, followed suit. He put his arm around Louise and they softly went out. Then Bill and Elizabeth sat up in bed and winked at each other.

NOT A SPECIAL DELIVERY.

SOME mail matter posted in this city in 1886 for a resident of North Carolina recently reached him in West Virginia.